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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/724,347	11/26/2003	Kimmo Henrik Uutela	2532-00340	8058

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EXAMINER

JEAN PIERRE, PEGUY

ART UNIT PAPER NUMBER

2819

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/724,347	Applicant(s) UUTELA ET AL.	
	Examiner Peguy JeanPierre	Art Unit 2819	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 26 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/18/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed on 3/18/2004 has been considered.

Claim Objections

3. Claims 1-14 are objected to because of the following informalities: In order to clarify the claimed language the following changes are suggested:

In claim 1 line 2 after "of" add -- :--; and in claim 11 line 2, after "comprising " add -- :--.

Appropriate correction is required.

Drawings

4. Figures 1A and 1B should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures.
5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the limitations of claims 1 and 11 of a means to select samples of the first sequence; the comparator of claims 2 and 12 that compares the first sequence with a reference signal; the low pass filter of

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claim 9; the second low pass filter of claim 10; the connection of the selection means and a comparator means of claim 12; the structure of the second sample sequence; and any limitations in the claims that are essential to make and use the invention must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

6. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

7. Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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In claim 1 line 8, the term " down sampling said first sequence by using the selected samples..." is unclear and misleading. It appears that the selected samples are down sampling as described in the specification but they are not being used to down sample the first sequence, a filter as described in the specification is used to down sample the first sequence. In addition, the claim recites " selecting some of the samples of the first sequence ..." it appears the first sequence is the selected samples, the specification does not elaborate and the drawings do not show the selection process. Please clarify. The same rejection applies to claim 11.

In claim 4, line 2, the term "the slew rate" lacks antecedent basis;

In claim 7, line 3, the term " the amount of power ..." lacks antecedent basis; the same rejection applies to claim 14.

The claims as understood by the Examiner recite the conversion of high samples signals to digital. The samples signals and the power supply lines are filtered before being converted to digital.

An art rejection of the claims as understood by the Examiner appears below.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Slavin (USP 4483,346) in view of Coetzee (USP 5,924,980) and Maruyana (USP 5,048,535).

Slavin disclose a method for reducing interference in an electrical signal that comprises a means to select (478) the input signals (44) (see col. 4, lines 15-16; 14 Fig. 4) to generate a first sequence of sample signals; means to down sample or filter (through microprocessor 52 and col. 4, lines 3-7) the selected sample signal (see col. 4, lines 16-18; 44 Fig. 4); means to convert the selected sample to digital (see col. 3, lines 64-66; 46 Fig. 4). It is to be noted that interference is reduced by artifacts filter (see col. 4, line 16-17) and the selected samples have high sample rate (see col. 4, lines 28-30).

Slavin does not disclose a second sample sequence. However, it is known in the art that filtering a first sample sequence will lead to another or second sample sequence. Slavin does not disclose means to generate information that indicates whether the sample is free of interference or not. Coetzee discloses a filter means that functions to

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indicate whether or not selected samples are valid (free of interference) or invalid (see col. 9, lines 19-51) to eliminate the impact of undesired noise component in the selected sample. Therefore, it would have been obvious to one having ordinary skill in the art to incorporate the teaching of Coetzee of tagging the samples signal with valid and invalid flag in the converter of Slaving to improve the accuracy and reliability of the converter.

Furthermore, Slavin fails to teach the removal of noise in power supply hum.

Maruyana discloses means for removal of power hum in electrical signal (see col. 3, lines 30-40) to facilitate the detection of the signal. Therefore, it would have been obvious to one having ordinary skill in the art to implement the teaching of Maruyana by removing noise in the power supply hum in the converter of Slavin to increase the accuracy and efficiency of the converter. It would have been further obvious to use the to limit the rise/fall speed (the slew rate) to a preselected value of the signal and update the electrical signal in accordance to the corrected signal.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Peguy JeanPierre whose telephone number is (571) 272-1803. The examiner fax phone number is (571) 273-1803.


Peguy JeanPierre
Primary Examiner